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**Question Paper Code: 41153**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fifth Semester

Civil Engineering

14UCE503 - RAILWAYS, AIRPORT AND HARBOUR ENGINEERING

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Coning of wheels is provided to
  - (a) check lateral moment of wheel
  - (b) avoid damage to inner faces of rail
  - (c) avoid discomfort to passengers
  - (d) all the above
2. The sleepers which satisfy the requirements of an ideal sleeper are
  - (a) Cast iron Sleepers
  - (b) RCC Sleepers
  - (c) wooden Sleepers
  - (d) Steel Sleepers
3. Track construction involves preparation of
  - (a) Sub grade
  - (b) Plate laying
  - (c) Ballasting
  - (d) All the above
4. The quantity of stone ballast required per meter tangent length, is
  - (a)  $1.15\text{m}^3$
  - (b)  $1.14\text{ m}^3$
  - (c)  $1.11\text{ m}^3$
  - (d)  $1.13\text{ m}^3$
5. The meteorological to I.C.A.O the slope of transitional surface at right angles to the centre line of runway, is kept
  - (a) 1 in 4
  - (b) 1 in 7
  - (c) 1 in 6
  - (d) 1 in 5



(b) Briefly explain about the different types of station yards also explain the functioning and types of marshalling yard. (16)

18. (a) What are the factors which influence the location of an airport? (16)

Or

(b) Mention the standards laid down by ICAO for the layout of the imaginary surfaces. (16)

19. (a) Describe the various elements of the airport lighting. (16)

Or

(b) Briefly discuss the various geometric standards for the taxiway with special reference to the recommendations of the ICAO. (16)

20. (a) Discuss the different types of gravity wharves and the circumstances under which you will select each type. (16)

Or

(b) What are the off-shore breakwaters? Explain their functions. (16)

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